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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,082	09/04/2003	Elmar Giehler	10191/3198	9938

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/656,082	Applicant(s) GIEHLER ET AL.	
	Examiner Daniel J. Cavallari	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/4/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 9/4/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 11, & 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claims 1 & 15

The limitation of a "quasi-digital" signal is unclear. The term "quasi-digital" is not regularly used in art. The dictionary definition of "quasi" is "having some resemblance usually by possession of certain attributes". The specification discloses that "A sequence of digital or quasi-digital signals generated by alternately manipulating or not manipulating the input element(s) is understood as a sequence of individual signals, which each have one of two different, possible states, "zero" or "one", "on" or "off", or "high" or "low", individual letters and/or numerals of the code each being made up of a

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plurality of consecutive, individual signals, whose varying composition and/or length decides the specific meaning.” (See Page 3 of Specification) From, this description, it appears that a “quasi-digital” signal is a signal in which “individual letters and/or numerals of the code each being made up of a plurality of consecutive, individual signals, whose varying composition and/or length decides the specific meaning.”

The claim will be examined as best understood in which a “quasi digital signal” is interpreted to mean a signal used to represent an individual letter or numeral in which the signals varying composition determines the signals control function.

In regard to Claims 1, 11

The term “manipulating” is not one used regularly in the art in regards to an electronic device. The claim will be examined as best understood in which “manipulate” is interpreted to mean “operate”.

In regard to Claim 5

The limitation of “...wherein the input element is configured to differentiate between two input states and to transmit a digital, high-level or low-level voltage signal...” is unclear. The dictionary definition of “differentiate” is “to develop differential characteristics in”. The dictionary definition of “differential” is “of, relating to, or constituting a difference” and the dictionary definition of difference is “the quality or state of being different”. The “input element” is disclosed as “a tip switch, a proximity switch, or a sensor...” (See Page 4 of the Specification). Such devices are incapable of

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“differentiating” between two signals rather they simply switch between two given states in which they are connected (i.e. off and on, high and low).

The claim will be examined as best understood in which “differentiate” is interpreted to mean “switch”.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 2, 5, 13, & 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Burgess (US 6,031,465).

In regard to Claim 1, 5, 13, & 15

Burgess teaches:

- A device for unlocking a locked vehicle door in response to operation of an electronic door opener (108 & 112) (See Figure 2 & Column 4, Lines 7-37)
- The device having at least one input element, read on by pushbuttons (See Column 3, lines 39-55) accessible from the outside of the vehicle (See Column 2, Lines 19-28) wherein the door may be unlocked by inputting a code at the input element (See Column 4, lines 18-28)
- The code including a sequence of digital or quasi-digital signals generated by alternately operating or not operating the input element (See Column 3, Lines 39-55), read on by the pushbuttons (See Column 6, Lines 17-27). These

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digital/quasi-digital inputted from the pushbuttons are inputted to a digital processor (See Figure 2 & Column 4, lines 18-37)

In regard to Claim 2

- The keyless entry system wherein the code may be changed (See Column 7, lines 55-64)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess & Loraas et al. (US 6,236,120).

Incorporating all arguments above of the keyless entry system taught by Burgess, Burgess teaches inputting a code to start the vehicle (See Column 4, lines 18-28) but fails to starting the vehicle during a predefined, limited time span after a code is inputted.

Loraas et al. (*Hereinafter referred to as Loraas*) teaches a keyless vehicle entry system in which a vehicle that may be started only after a code is input at an input

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element within a predetermined time after the code has been inputted (See Column 4, Lines 3-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Loraas in which to prevent starting the vehicle unless a code has been inputted during a predefined amount of time after the code has been entered. The motivation would have been to provide the vehicle with added security and prevent unauthorized use in the event that a code has been entered and the operator has stepped away from the vehicle.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess & Magner et al. (US 2004/0030462)

In regard to Claims 6-9

Incorporating all arguments above of the keyless entry system taught by Burgess, Burgess fails to teach an optical or acoustic indicator configured to intermittently provide an indication in which the indicating frequency of the indication changes as a function of an operating state of the system.

Magner et al. "*Hereinafter referred to as Magner*" teaches a keyless entry system for a vehicle in which the operating state of the system is displayed using an optical indicator in which the optical indicator, read on by the LED, intermittently provides an indication, an indicating frequency of the indication changing as a function of an

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operating state of the system, read on by the embodiment in which a single LED is used to blink at a particular number of times to indicate a particular condition (See Paragraph 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the indication system comprising a blinking LED taught by Magner into the keyless vehicle entry system of Burgess. The motivation would have been to provide an easy to read and understand system of easily conveying vehicle information to assist the driver of the vehicle.

In regard to Claim 10

Magner et al. teaches an LED indicator used to provide feedback for the vehicle operator (See Paragraph 41) but fails to teach explicitly the indicator located on or near a door button of a door of a vehicle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the LED of Magner next to the vehicle door since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). The motivation would have been to place the indicator in a location which it is convenient for the operator to view, such as next to the door as the operator would approach the door when trying to enter the vehicle.

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Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess & Huizenga (US 6,854,870)

Incorporating all arguments above of the keyless entry system taught by Burgess, Burgess teaches an input element which can be mounted in any desired location (See Column 2, Lines 19-29) such as the top edge of the window but fails to explicitly teach the input element situated on a door handle of a door of a vehicle.

Huizenga teaches tactile switches (32) located on a vehicle door handle (See Column 4, line 62 to Column 5, Line 5 & Figures 1 & 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the switches taught by Burgess on the door handle as taught by Huizenga. The motivation would have been to place the switches in a location convenient for the operator of the vehicle to operate.

Allowable Subject Matter

Claim 11 is dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and re-written to overcome the previously stated 112 second paragraph rejection.

Claim 11 recites the limitation of a keyless entry system in which "after an incorrect code is inputted several time within a predefined period of time, the locked vehicle door may be opened only by operation of a functioning electronic door opener".

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Kirchlinde et al. (US 6,577,227) teaches a keyless entry system in which if incorrect codes are repeatedly inputted, an opening procedure can be carried out only with a special key (See Column 6, Lines 24-35). Kirchlinde et al. and prior art fails to teach wherein an electronic door opener is needed to open a vehicle door after an incorrect code is inputted several times within a predefined period of time.

Claims 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Mochida et al. (US 4,455,588) teaches an electronic unlocking method for use in a vehicle utilizing a single switch in a Morse code fashion (See Column 1, Lines 6-15, Column 2, lines 54 to Column 3, Line 7)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

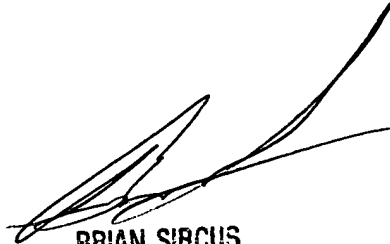
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

January 18, 2006



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800